KNIGHT WARRANTY

Your Knight equipment is warranted to be free from defects for a period of ninety (90) days from date of sale.

Any defective parts will be repaired or replaced free of charge during the first ninety days from date of sale.

IMPORTANT INSTRUCTIONS

If your unit is not operating properly, first write to our Technical Consulting Service for assistance. Authorization must be obtained before returning your equipment for service. After you receive your return authorization, please pack your unit in a sturdy shipping carton and tightly cushion with plenty of packing material to avoid costly damage in transit. Send the package prepaid and fully insured to the address at the bottom of this page. Mark the package: FRAGILE — DELICATE ELECTRONIC EQUIPMENT.

OUT OF WARRANTY SERVICE

Knight maintains complete service facilities, and spare parts, for all of its products. If service is required, follow the instructions given above. Repair charges will be for time and materials used.

ADDRESS CORRESPONDENCE AND RETURNED EQUIPMENT TO:

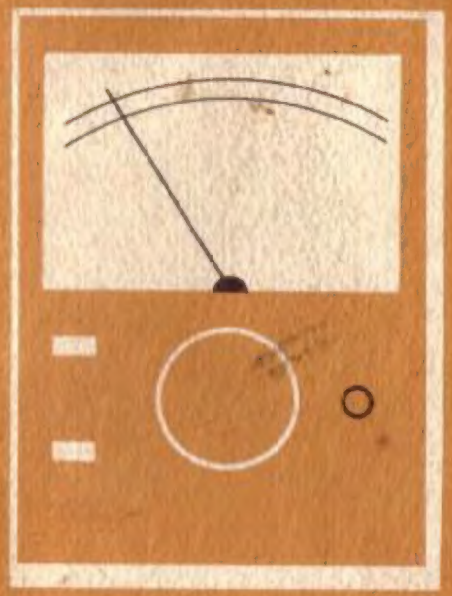
KNIGHT ELECTRONICS CORP.

Knight Service Department

2100 Maywood Drive • Maywood, Illinois

knight®

OPERATOR'S MANUAL



KG-640
20,000 OHMS/VOLT VOM

TABLE OF CONTENTS

© Copyright 1966 Knight-Electronic Corp. Mercerville, N.J.

SPECIFICATIONS

RANGES (57)	
DC VOLTAGE (12)	**0-.8, 1.6, 8, 16, 40, 80, 200, 400, 800 1600, 2000, and 4000. Sensitivity 20,000 or 10,000 ohms-per-volt determined by scale multiplier switch.**
AC VOLTAGE (12)	**0-2, 4, 8, 16, 40, 80, 200, 400, 800, 1600, 2000, and 4000. Sensitivity 5,000 or 2,500 ohms-per-volt determined by scale multiplier switch.**
DC CURRENT (10)	**0-80 μa, 160 μa, 400 μa, 800 μa, 8 ma, 16 ma, 200 ma, 400 ma, 8 amp, 16 amp**
OHMS (3)	**0-1K, 100K, 10 meg. Center scale values of 12, 1200 and 120K ohms.**
DECIBELS (12)	**−12 to +74**
OUTPUT (8)	**0-2, 4, 8, 16, 40, 80, 200, and 400**
ACCURACY	**Within 3% of full scale on DC to 1600 volts Within 5% of full scale on AC to 1600 volts**
FREQUENCY RESPONSE	**20 cps to beyond 200 KC**
METER	**4½", 50 μa full scale**
BATTERIES	**1 flashlight, type C and 4 penlight, type AA.**
SIZE	**6¾" x 5¼" x 3¾"**

The Knight VOM has been designed with the service technician in mind. It has 57 ranges and incorporates a 4½", 50 μamp, mirror scale meter movement that eliminates parallax errors.

Factory selected calibrating resistors compensate for the individual characteristics of the meter movement and AC rectifiers. High quality 1% multiplier resistors assure 3% accuracy on DC and 5% on AC.

DESCRIPTION OF CONTROLS

SELECTOR SWITCH

Selects the function, —AC volts, DC volts etc. . . . . ; and the individual ranges within the function.

POLARITY REVERSE SWITCH

Allows the reversal of polarity to the meter without having to change the connection of the test leads to the circuit under test. It should be set in the $+\frac{\text{AC}}{\text{DC}}$ when measuring AC voltages.

SCALE MULTIPLIER SWITCH

Provides a range-dividing function, effectively doubling the number of usable ranges for voltage and current measurements. This switch must be set in the $\Omega\ \frac{\text{VA}}{2}$ position when making resistance measurements.

OPERATING NOTES

Before any measurements are made, be sure the instrument is placed flat on a bench where the measurements will be performed. Always check that the meter pointer is lined up with the zeros on the left hand side. If the pointer does not fall in line with these marks, turn the nylon screw directly above the word "OFF" either left or right until the pointer is positioned correctly.

Although this meter is very similar to many meters on the market today, it is recommended that you read all of the material on the following pages. It will be important to you to fully understand the capabilities of the meter before you begin using it.

When the meter is used to measure DC voltages, polarity should be observed. The black test lead is plugged in the **-COM** jack and should be connected to the low or common side of the circuit in which the voltage is to be measured. The red test lead is plugged into the **VΩA** jack and should be connected to the high side of the circuit. In some cases where the polarity is not known, touch the red test lead to the circuit to get an indication of meter deflection. Once an indication has been obtained, the polarity switch can be set correctly.

When using the meter be sure to take into consideration the loading effects the meter will have on any high impedance circuit. This is especially true on the low AC and DC ranges.

HOW TO MEASURE DC VOLTAGES

Place the meter in front of you where the face can be viewed directly.

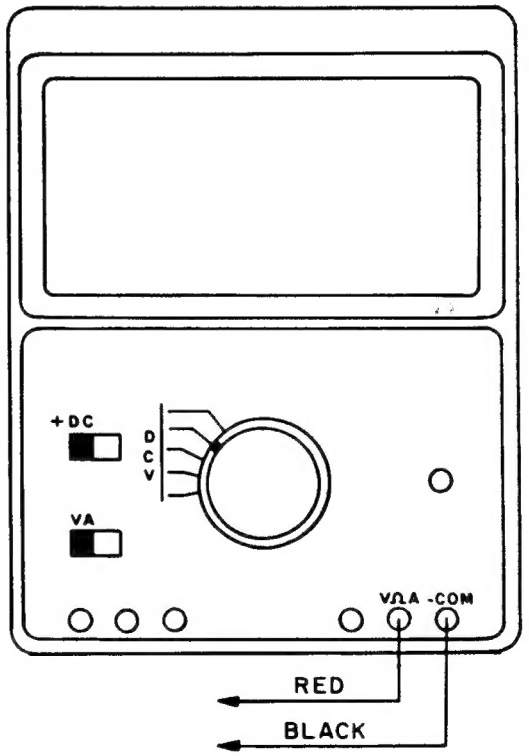
- ☐ Plug the black test lead into the jack marked **-COM** and the red test lead into the **VΩA** jack.
- ☐ Set the upper slide switch to **+DC** for positive voltage readings. For negative voltage readings, set the slide switch to **—DC**.
- ☐ Rotate the selector switch to the **DCV** range which will provide a reading at the right hand side of the scale.

NOTE: It is always a good practice to start with the highest range available. Then, after first indication, the switch should be reset to the position in which more accurate readings can be obtained. If possible, make final readings on a range which provides readings in the right hand half of the scale, since meter accuracy is based on full scale value.

- ☐ Touch the black test lead to the negative side of the circuit in which the DC voltage reading is to be made.
- ☐ Then leaving one hand free, touch the red test lead to the positive point in the circuit.

The value of the measured voltage can now be read from the appropriate meter scale, taking into account the range setting of the selector switch and the setting of the scale multiplier switch.

CAUTION: When measuring high, lethal voltages, it is best to disconnect power from the equipment under test before connecting the meter. In cases where it is impossible to do this, connect the leads separately and use only **one hand** at any one time. Grasp the test prod well back from the metal tip and make momentary contact with the circuit under test by letting the metal tip of the prod touch the point at which the potential exists. Never touch part of the equipment under test with the other hand.



HOW TO MEASURE DC VOLTAGES (Continued)

For all DC voltage readings, use only the black scales marked DC.

For readings of 0 -.8 volts, set the selector switch to **1.6** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-80 DC scale, each division being equal to .02 of a volt.

For readings of 0-1.6 volts, set the selector switch to **1.6** and the scale multiplier switch to **VA.** Read on the 0-16 DC scale, each division being equal to .04 of a volt.

For readings of 0-8 volts, set the selector switch to **16** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-80 DC scale, each division being equal to .2 of a volt.

For readings of 0-16 volts, set the selector switch to **16** and the scale multiplier switch to **VA.** Read on the 0-16 DC scale, — each division being equal to .4 of a volt.

For readings of 0-40 volts, set the selector switch to **80** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-400 DC scale, — each division being equal to 1 volt.

For readings of 0-80 volts, set the selector switch to **80** and the scale multiplier switch to **VA.** Read on the 0-80 DC scale, — each division being equal to 2 volts.

For readings of 0-200 volts, set the selector switch to **400** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-200 DC scale, — each division being equal to 5 volts.

For readings of 0-400 volts, set the selector switch to **400** and the scale multiplier to **VA.** Read on the 0-400 DC scale, — each division being equal to 10 volts.

For readings of 0-800 volts, set the selector switch to **1600** and the scale multiplier switch to $\frac{\text{4000 VA}}{2}$. Read on 0-80 DC scale,—each division being equal to 20 volts.

For readings of 0-1600 volts, set the selector switch to **1600** and the scale multiplier switch to **VA.** Read on the 0-16 DC scale, — each division being equal to 40 volts.

For readings of 0-2000 volts, set the selector switch to **1600** and the scale multiplier switch to $\frac{\text{4000 VA}}{2}$. Place the red test lead into the jack marked **+4KV DC.** Read on the 0-200 DC scale, — each division being equal to 50 volts.

For readings of 0-4000 volts, set the selector switch to **1600** and the scale multiplier switch to **VA.** Place the red test lead into the jack marked **+4KV DC.** Read on the 0-400 DC scale, — each division being equal to 100 volts.

NOTE: If working with high potentials of this order, make doubly sure that the **CAUTION** paragraph at the beginning of this section is strictly observed.

HOW TO MEASURE AC VOLTAGES

☐ Plug the black test lead into the jack marked **-COM.** Plug the red test lead into the jack marked **VΩA.**

☐ Set the upper slide switch to **AC.**

☐ Rotate the selector switch to the **ACV** range which will provide a reading at the right hand side of the scale.

☐ Clip the black test lead to one terminal of the voltage to be measured and the red test lead to the other.

NOTE: For high voltages, follow the same precautions as noted in the section on "HOW TO MEASURE DC VOLTAGES".

Use the RED AC scales for voltage readings of 2, 4 and 8 volts. The BLACK scales are used for voltage readings of 16 through 4000 volts.

For readings of 0-2 volts, set the selector switch to **4** and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the RED 0-2 AC scale, — each division being equal to .1 volt.

For readings of 0-4 volts, set the selector switch to **4** and the scale multiplier switch to **VA.** Read on the RED 0-4 AC scale, each division being equal to .2 of a volt.

For readings of 0-8 volts, set the selector switch to **16** and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the RED 0-8 AC scale., — each division being equal to .2 of a volt.

For readings of 0-16 volts, set the selector switch to **16** and the scale multiplier switch to **VA.** Read on the BLACK 0-16 AC scale, — each division being equal to .4 of a volt.

For readings of 0-40 volts, set the selector switch to **80** and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the BLACK 0-400 AC scale, — each division being equal to 1 volt.

For readings of 0-80 volts, set the selector switch to **80** and the scale multiplier switch to **VA.** Read on the BLACK 0-80 AC scale, — each division being equal to 2 volts.

For readings of 0-200 volts, set the selector switch to **400** and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the BLACK 0-200 AC scale, — each division being equal to 5 volts.

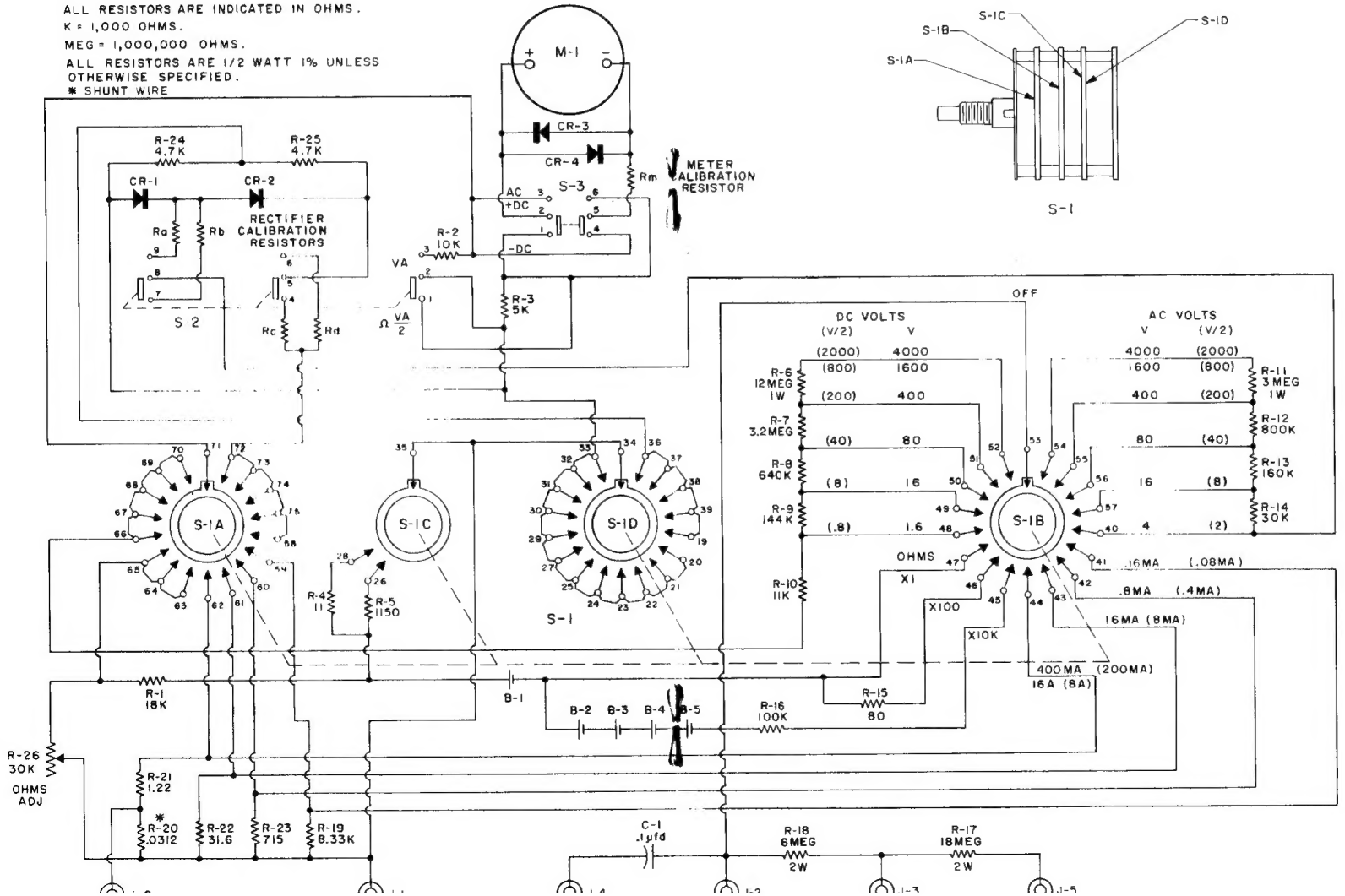
For readings of 0-400 volts, set the selector switch to **400** and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the BLACK 0-400 AC scale, — each division being equal to 10 volts.

For readings of 0-800 volts, set the selector switch to $\frac{\textbf{4000}}{\textbf{1600}}$ and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Read on the BLACK 0-80 AC scale, — each division being equal to 20 volts.

For readings of 0-1600 volts, set the selector switch to $\frac{\textbf{4000}}{\textbf{1600}}$ and the scale multiplier switch to **VA.** Read on the BLACK 0-16 AC scale, — each division being equal to 40 volts.

For readings of 0-2000 volts, set the selector switch to $\frac{\textbf{4000}}{\textbf{1600}}$ and the scale multiplier switch to $\frac{\textbf{VA}}{\textbf{2}}$. Place the red test lead into the $\frac{}{\textbf{4KV}}$ jack marked **AC.** Read on the BLACK 0-200 AC scale, — each division being equal to 50 volts.

For readings of 0-4000 volts, set the selector switch to $\frac{\textbf{4000}}{\textbf{1600}}$ and the scale multiplier switch to **VA.** Place the red test lead into the $\frac{}{\textbf{4KV}}$ jack marked **AC.** Read on the BLACK 0-400 AC scale, — each division being equal to 100 volts.


ALL RESISTORS ARE INDICATED IN OHMS.
K = 1,000 OHMS.
MEG = 1,000,000 OHMS.
ALL RESISTORS ARE 1/2 WATT 1% UNLESS OTHERWISE SPECIFIED.
* SHUNT WIRE
M-1
CR-1
CR-2
CR-3
CR-4
R-24 4.7K
R-25 4.7K
RECTIFIER CALIBRATION RESISTORS
Ra
Rb
Rc
Rd
S 2
S-3
AC
+DC
-DC
Rm
METER CALIBRATION RESISTOR
R-2 10K
VA
R-3 5K
Ω VA/2
S-1A
S-1B
S-1C
S-1D
S-1
OFF
DC VOLTS
(V/2) V
(2000) 4000
(800) 1600
(200) 400
(40) 80
(8) 16
(.8) 1.6
AC VOLTS
V (V/2)
4000 (2000)
1600 (800)
400 (200)
80 (40)
16 (8)
4 (2)
R-6 12MEG 1W
R-7 3.2MEG
R-8 640K
R-9 144K
R-10 11K
R-11 3MEG 1W
R-12 800K
R-13 160K
R-14 30K
OHMS
X1
X100
X10K
16MA (8MA)
.8MA (.4MA)
400MA (200MA)
16A (8A)
R-15 80
R-16 100K
R-4 11
R-5 1150
B-1
B-2 B-3 B-4 B-5
R-1 18K
R-26 30K
OHMS ADJ
R-21 1.22
R-20 .0312
R-22 31.6
R-23 715
R-19 8.33K
C-1 .1μfd
R-18 6MEG 2W
R-17 18MEG 2W
J-1
J-2
J-3
J-4
J-5
S-1
S-1A
S-1B
S-1C
S-1D

HOW TO MEASURE RESISTANCE

CAUTION: Before making any resistance measurements in a circuit, make sure that the power is turned off. It is also good practice to discharge any capacitors in the part of the circuit in which resistance measurements are to be made.

☐ Plug the black test lead into the jack marked **-COM.** Plug the red test lead into the jack marked **VΩA.**

☐ Place the polarity reverse switch in the $\frac{\text{AC}}{+\text{DC}}$ position. Place the scale multiplier switch in the $\Omega\frac{\text{VA}}{2}$ position.

NOTE: It will not be possible to zero the meter on any range if the scale multiplier switch is set in the **VA** position.

☐ Set the selector switch to the **XI OHMS** range. Connect the two test lead ends together. Turn the **OHMS ADJ** control until the meter reads 0 on the RED scale marked Ω.

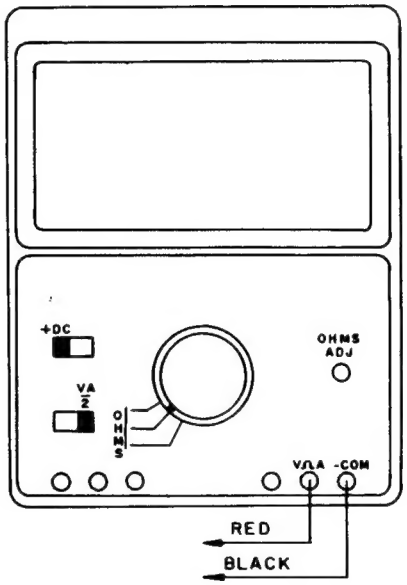
The **XI** ohms scale is now calibrated to read ohm values from 0-1000 ohms. Use this same procedure to calibrate the **X100** and **X10K** ranges before any measurements are made on these ranges.

Connect the test leads to the terminals of the unknown resistance to be measured. Observe the meter reading. Since greatest accuracy is at the right hand side of the scale, switch the selector switch to the range that provides maximum deflection.

The meter should be re-calibrated frequently for accurate readings.

With the selector switch set in the **X1** position, the 0-1K ohm range is covered; center scale reading is 12 ohms. Read the scale directly.

With the selector switch set in the **X100** position, the 100 to 100K ohm range is covered; center scale reading is 1200 ohms. Multiply readings by 100.



With the selector switch set in the **X10K** position, the 10K to 10 meg ohm range is covered; center scale reading is 120K. Multiply readings by 10,000.

When measuring resistance, a current is made to flow through the unknown resistance. Usually this current is so small that it can be neglected. However, on the X1 ohms range, currents as high as 180 milliamps will flow through resistances lower than 6 ohms. Therefore it is good practice to consider the current flow first when measuring the D-C resistance of a device which can safely pass only low currents without being burned out. For all other cases, no damage will result as long as the ohmmeter current does not exceed the current rating of the unknown resistance.

HOW TO MEASURE DC CURRENT

☐ Plug the black test lead into the jack marked **-COM.** Plug the red test lead into the jack marked **VΩA.**

☐ Set the upper slide switch to the $\frac{\text{AC}}{+\text{DC}}$ position. Set the lower slide switch to $\frac{\text{VA}}{2}$.

☐ Set the selector switch to the **MA** current range you wish to measure. Always start at the highest range and then reset the switch to obtain a convenient reading.

CAUTION: Although the meter incorporates protection for the movement, never connect the test leads across any source of voltage when measuring current, or damage may result.

☐ Open the circuit in which the current is to be measured.

☐ Connect the black test lead to the negative side of the circuit break, and the red test lead to the positive side.

☐ Apply power to the circuit. The value of the measured current can now be read from the appropriate meter scale, taking into account the setting of the selector switch and scale multiplier switch.

For readings of 0-80 μa, set the selector switch to **.16** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-80 DC scale,—each division being equal to 2 μa.

For readings of 0-160 μa, set the selector switch to **.16** and the scale multiplier switch to **VA.** Read on the 0-16 DC scale, — each division being equal to 4 μa.

For readings of 0-400 μa, set the selector switch to **.8** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-400 DC scale, — each division being equal to 10 μa.

For readings of 800 μa, set the selector switch to **.8** and the scale multiplier switch to **VA.** Read on the 0-80 DC scale, — each division being equal to 20 μa.

For readings of 0-8 ma, set the selector switch to **16** and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-80 DC scale,—each division being equal to .2 ma.

For readings of 0-16 ma, set the selector switch to **16** and the scale multiplier switch to **VA.** Read on the 0-16 DC scale, — each division being equal to .4 ma.

For readings of 0-200 ma, set the selector switch to $\frac{\text{400MA}}{\text{16A}}$ and the scale multiplier switch to $\frac{\text{VA}}{2}$. Read on the 0-200 DC scale,— each division being equal to 5 ma.

For readings of 0-400 ma, set the selector switch to $\frac{\text{400MA}}{\text{16A}}$ and the scale multiplier switch to **VA.** Read on the 0-400 DC scale, — each division being equal to 10 ma.

For readings of 0-8 amps, set the selector switch to $\frac{\text{400MA}}{\text{16A}}$ and the scale multiplier switch to $\frac{\text{VA}}{2}$. Place the red test lead into the jack marked **+16A.** Read on the 0-80 DC scale. — each division being equal to 200 ma.

For readings of 0-16 amps, set the selector switch to $\frac{\text{400MA}}{\text{16A}}$ and the scale multiplier switch to **VA.** Place the red test lead into the jack marked **+16A.** Read on the 0-16 DC scale, — each division being equal to 400 ma.

HOW TO MEASURE AC CURRENT

The AC voltage ranges may also be used to measure AC current at power line frequencies. This is accomplished by inserting a low value resistance of sufficient wattage in the current path and reading the voltage across it. Since the value of the resistance and the voltage drop are known, the current can be calculated by the following formula:

$$I\ (\text{Amperes}) = \frac{E\ (\text{volts})}{R\ (\text{ohms})}$$

- ☐ Place the black test lead into the jack marked **—COM.** Place the red test lead into the jack marked **VΩA.**
- ☐ Set the selector switch to the ACV range that will provide a reading at the right hand side of the scale. Always start at the highest range and work your way down until you can read at the right hand side of the scale.
- ☐ Make a break in the circuit in which the current is to be measured.
- ☐ Insert a resistor of known value and sufficient wattage in the circuit.
- ☐ Measure the voltage drop across the resistor, adjusting the selector switch to read at the right hand side of the scale.
- ☐ Calculate the current using the Ohm's Law formula (above).

HOW TO MEASURE OUTPUT VOLTS

When it becomes necessary to measure an AC voltage that is superimposed on a DC voltage, the OUTPUT circuit of your meter should be used. In the OUTPUT position, a capacitor is used to block the DC current from reaching the meter. The meter will then indicate the correct AC voltage.

- ☐ Plug the black test lead into the jack marked **—COM** and the red test lead into the jack marked **OUTPUT.**
- ☐ Proceed as indicated under HOW TO MEASURE AC VOLTAGES. DO NOT EXCEED 600 VOLTS!

NOTE: Since the 2000 and 4000 volt AC ranges require a separate input jack, the blocking capacitor, necessary for output measurement is not connected in the meter circuit. These ranges cannot be used for output measurements unless an external DC blocking capacitor with a rating of 4 KV is used.

When AC voltages are measured with the output circuit, the impedance of the DC blocking capacitor will have an effect on the accuracy of the meter reading. The error which occurs varies with the frequency of the applied voltage. The higher the frequency the smaller this error will be.

HOW TO MEASURE DB (Decibles)

AC output voltages are often measured in units called Decibels, which are used to indicate power levels in amplifiers or general telephone work. The DB scale (bottom meter scale) is based on the voltage developed across a 600 ohm line when .001 watt is dissipated. This voltage is assigned the reference 0 db. Such a voltage deflects the pointer to .775 volts on the 0-2 volt AC range. Therefore, a direct meter reading in terms of decibels can be made only when the meter is connected across a 600-ohm resistive load. Otherwise only relative db measurements can be obtained. However, in a large number of cases, relative measurements are appropriate, since reference conditions are defined by other factors and only relative variations are important.

To measure DB, proceed as follows:

☐ Plug the black test lead into the jack marked **−COM.**

☐ Plug the red test lead into the jack marked **OUTPUT.**

NOTE: When no DC voltage is present, the **VΩA** jack can be used since the DC blocking capacitor is not required.

☐ Rotate the selector switch to the highest AC range and work down to one which will provide a reading at the right hand side of the scale.

☐ Connect the test leads to the circuit where the measurement is to be made.

☐ The meter pointer will indicate a reading in DB.

☐ The final DB reading is determined by the value indicated on the DB scale plus the addition of a constant, depending on the range setting.

The following table will give you the constants for the AC ranges.

AC VOLTAGE RANGE	ADD DB
0-2	0
0-4	+6
0-8	+12
0-16	+18
0-40	+26
0-80	+32
0-200	+38
0-400	+46
0-800	+52
0-1600	+58
0-4000	+66

SERVICE HINTS

Should your VOM become inoperative on one or more functions or ranges, the following chart will help you in locating the trouble.

TROUBLE	CHECK THE FOLLOWING
DC voltage range or ranges inoperative	Resistors R-2, 3, 6, 7, 8, 9, 10, 17 and 18. Switches S-1, 2 or 3.
AC voltage range or ranges inoperative	Resistors R-2, 3, 11, 12, 13, 14, 18, 24, 25 and calibration resistors Ra, b, c, d. Rectifier diodes CR-1 and 2. Should it become necessary to replace CR-1 or 2, a new set of calibration resistors should also be purchased. Switches S-1, 2 or 3.
Ohmmeter inoperative on one or more ranges	If pointer cannot be zeroed on X1 or X100 ranges, check battery B-1 and resistors R-1, 4, 5, 26. On the X10K range, check batteries B-2 through 5 and resistors R-1, 16, 26. Switches S-1, 2 or 3.
DC current range or ranges inoperative	Resistors R-2, 19, 20, 21, 22 and 23. Switches S-1, 2 and 3.
Meter inoperative on all ranges	Resistor Rm; Meter M-1; Diodes CR-2, 4; Switches S-1, 2 or 3.
Ohmmeter cannot be zeroed on one or more ranges	Setting of scale multiplier switch. This switch *must* be set in the $\Omega\left(\frac{VA}{2}\right)$ position. Batteries B-1 through B-5.

NOTE: Should it become necessary to replace Rm, the meter calibrating resistor, please include with your order the four numbers written on the back of the meter movement. This determines the value of Rm.

PARTS LIST

RESISTORS

Symbol	Description	Part No.
R-1	18K, ± 1%	341-802
R-2	10K, ± 1%	341-002
R-3	5K, ± 1%	345-001
R-4	11Ω, ± 1%	341-107
R-5	1150Ω, ± 1%	341-151
R-6	12 meg, ± 1%, 1W	351-205
R-7	3.2 meg, ± 1%	343-204
R-8	640K, ± 1%	346-403
R-9	144K, ± 1%	341-443
R-10	11K, ± 1%	341-102
R-11	3 meg, ± 1%, 1W	353-004
R-12	800K, ± 1%	348-003
R-13	160K, ± 1%	341-603
R-14	30K, ± 1%	343-002
R-15	80Ω, ± 1%	348-007
R-16	100K, ± 1%	341-003
R-17	18 meg, ± 1%, 2W	361-805
R-18	6 meg, ± 1%, 2W	366-004
R-19	8.33K, ± 1%	348-331
R-20	.0312Ω, ± 1%	334-098
R-21	1.22Ω, ± 1%	341-228
R-22	31.6Ω, ± 1%	343-167
R-23	715Ω, ± 1%	347-150
R-24	4.7K, ± 1%	344-701
R-25	4.7K, ± 1%	344-701

MISCELLANEOUS

Symbol	Description	Part No.
	Battery (B-1)	450-011
	Battery (B-2 thru 5) 4	450-013
	Battery holder	534-103
	Capacitor .1 μf, 600 volt	257-014
	Case	702-081
	CR-1 and CR-2 meter rectifiers and calibrating resistors	040-252
	Front panel	880-124
	Meter movement	659-276
	Meter window	770-057
	Meter protection diode 2	630-059
	Ohms Adj control	392-235
	Polarity reversal switch	437-117
	Scale multiplier switch	431-610
	Selector switch	437-156